PRINTER RUSH (PTO ASSISTANCE)

Application: 10/078,1	<u> </u>	. MALZAHN	GAU:	2193		
From: R. M. TCH	Location: (1	DC FMF FDC	Date: _	1/19/04		
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[RUSH] MESSAGE: PAGE 7 LINE 29 CHARACTER AFTER (-1)?						
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[XRUSH] RESPONSE:		· · · · · · · · · · · · · · · · · · ·				
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NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.

REV 10/04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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RESPO	ONSE TO NOTICE TO FILE	CORRECTED APPLICATION PAPERS
U.S. Patent and Trade Customer Service Wir Randolph Bullding, Ma 401 Dulany Street Alexandria, VA 2231	ndow ail Stop <u>Missing Parts</u> 4	A DESCRIPTION APPLICATION
The present commu	unication is in response to the nuary 31, 2006.	"NOTICE TO FILE CORRECTED APPLICATION
	eto as required by the Notice bstitute drawing sheets (Figu	is/are: es) in compliance with 37 C.F.R. §1.84.
[] Also attached [] Prelim [] An Infi	d hereto is/are: hinary Amendment ormation Disclosure Stateme documents:	nt with Form SB/08A and references.
e a 161-banderre	nims small entity status. See petitioned for an extension of fee required by 37 C.F.R. §1.	37 C.F.R. §1.27. ime in accordance with 37 C.F.R. §1.136(a). The I7 is calculated as shown below:
Small Entity Response F [] First [] Secc [] Third [] Four [] Fifth	iled Within - \$ 60.00 ond - \$ 225.00 1 - \$ 510.00 th - \$ 795.00	Other Than Small Entity Response Filed Within [] First - \$ 120.00 [] Second - \$ 450.00 [] Third - \$1020.00 [] Fourth - \$1590.00 [] Fourth - \$2160.00 month after time period set
If any exten	afor	required, applicant requests that this be considered a
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UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Serial Number 10/078111

Date Mailed 1/31/06

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Notice of Allowance Mailed

This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

Applicant is given 30 days from the mail date of this Notice within which to correct the informalities indicated below. A failure to reply will result in the application being ABANDONED. This period for reply is NOT extendable under 37 CFR 1.136 (a) or (b).

- ◆ Page 7 Line 29 character after (-1)? Is illegible in the specification
- ◆ Page 63 is missing lines 1-7 in the specification. Fax legible information to number below or e-mail.
- o For status updates visit http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR System, contact the Electronic Business Center (EBC) toll free at 866-217-9197.

APPLICANT MUST SUPPLY MISSING INFORMATION WITHIN 30 DAYS OF THE MAIL DATE OF THIS NOTICE.

A copy of this notice <u>MUST</u> be returned with the reply. Please address response to Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

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fraction bits to the right of the binary point. Even in implementations where the significand's leading bit (to the left of the binary point) is implied and is not explicitly present, the significand still includes that leading bit. Note that a significand differs from a "mantissa" in that a mantissa includes only the fraction field to the right of the binary point, whereas a significand includes the bit to the left of the binary point. The concept of mantissa may be defined in such a way to include all of the bits of significand, including the leftmost bit and not only the fraction bits. In this case and for a binary normalized significand, the mantissa would simply be the significand shifted one place to the right, or divided by a scaling factor of 2.

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The Set of Machine Numbers

For purposes of illustration, a non-limiting example of a binary floating-point number system is the IEEE standard 754 previously referenced. We assume that three integer constants are given, E_{min} , E_{max} , p. The machine numbers are those which can be represented in the form $V = (-1)^s \times 2^E \times b_0 b_1 b_2 \dots b_{p-1}$, where $s \in \{0, 1\}$ represents the sign of v. E, representing the exponent of v, is an

IL 9-2001-0023

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Exceptional Case

As previously mentioned, there is an exceptional case where the exponent of $\underline{a} + \underline{b}$ is smaller by 1 than that of \underline{c} .

If the tails triplet chosen from Table 6 does not have any superscript it means that even if the generated S_c is 1.00...0, there is no post-normalization. In this case, the result is correct and acceptable.

If, however, the tails triplet has a superscript and the fixed-point generator produces $S_c=1.00...0$ then it means that some thing may be wrong with the result and it is not certain that the produced S_a , S_b , and S_c satisfy $S_c=round(2^{-Qa}S_a+2^{-Qb}S_b)$, as it should. This is discussed here in further detail.

If the superscript is ⁰ then the result is definitely wrong and cannot be corrected. In such a case, the result should be discarded and the significands construction should be repeated.

If the superscript is ¹, it means that the result is in fact correct, and should be accepted.

If the superscript is 2 , it means that the c_3 part of the tails should be constructed with care: Note that there are only two tails triplets with a superscript 2 , in the list: They are (0, 1, 1) and (1, 0, 1) in the round to nearest/even mode, with $C_p = 1$. Since the resulting S_c was 1.00...0 it means that the p+1 first bits of the exact sum were 011...1 and that c_3 should be concatenated to the right of this, in order to produce the complete IL 9-2001-0023

In re Appin. No. 10/078,111 Confirmation No. 4727 Atty's Docket: ABRAHAM=3

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

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